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Trajectories in classroom acoustics: the vocal behaviour of the teachers

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Classroom acoustics was one of the main research themes of Murray Hodgson, which I had the chance to know in Rome, at the ICA Conference in 2001, when I was at the beginning of my working path, and to further have as scientific converser in many other occasions. In Ferrara, in 2003, he concluded his presentation of a course on classroom acoustics with the hint that the teachers' voice problems should have been object of future studies. I have been working on this matter for seven years and this work summarises the results and the perspectives related to the assessment of teachers' vocal behaviour. In particular, teachers' voice monitoring during daily working activities has been recently based on wearable vocal analysers equipped with contact sensors, which allow for measuring parameters related to vocal effort, vocal loading and also to voice quality. Results obtained during experimental campaigns that took place in the last years, from kindergarten to university, and that involved healthy and unhealthy teachers, are presented in this work. The relationships with classroom acoustics, both in terms of noise and too low or excessive reverberations, and the subjective outcomes of the teachers, are also discussed.